

C L A I M S

**WE CLAIM:**

1.- Oxygen probe, meant for application in ducts through which flows a fluid and in which there exist  
5 extreme temperature and, particularly, extreme pressures, with a sensor element (2) of said probe housed in a mounting structure of the probe for coupling onto a pressurised duct or enclosure with the assistance of a gasket (7) which provides a hermetic mount for the probe,  
10 said mounting structure comprising a first metallic body (4) and a second metallic body (8) screwed axially inside the first body (4) pressing onto the sensor element (2), wherein a gasket (7) is interposed between said first body (4) and the duct characterized in that the first body  
15 (4) is provided with a neck (5) for mounting by a thread (6) on an orifice provided for such purpose on wall (3) of the duct or pressurised enclosure, said neck (5) surrounding the sensor element (2) and extending internally from the wall (3), the first body (4) having  
20 an internal seat for stopping the sensor element (2) in cooperation with a rear area provided in the sensor element (2) and with a deformable metallic washer to obtain a hermetic seal, the second body (8) being provided with an axial concentric passage wherein a  
25 metallic tube (9) and a protective sheath (14) are placed, the protective sheath (14) interposed therein providing insulation, said metallic tube (9) having soldered a metallic washer (10) which is in electric contact with the sensor element (2).

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